Starnes Bridge
(KY 1993 Bridge)
Spanning Eagle Creek
Holbrook Vic., Kentucky
Grant County

HAER No. KY-3

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historical American Engineering Record
National Park Service
Southeast Region
Department of the Interior
Atlanta, Georgis 30303

HISTORIC AMERICAN ENGINEERING RECORD

STARNES BRIDGE
HAER KY-3

Date:	1890
Location:	Spanning Eagle Creek near Holbrook, Kentucky on Kentucky Route 1993
Built by:	King Iron Bridge Company
Owner:	Kentucky Transportation Cabinet
Significance:	The Starnes Bridge is a rare surviving example of bridge technology representing the pin-connected Pennsylvania truss elements.
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STARNES BRIDGE, GRANT COUNTY

The KY Route 1993 bridge over Eagle Creek is locally known as the Starnes Bridge. It was determined eligible to the National Register of Historic Places on December 19, 1980. The Starnes Bridge is a pin-connected, 12 panel, 200' metal through truss span. It was constructed by the King Iron Bridge Company of Cleveland, Ohio, in 1890. The bridge is located in rural Grant County in northcentral Kentucky. The design of the Starnes Bridge appears to be a transitional adaptation composed of elements of both the Pennsylvania truss and the Camelback truss. The top chord has exactly five slopes, identifying it as a camelback, however, it also has sub-struts, features utilized on the Pennsylvania (Petit) truss a design which has a polygonal top chord of more than five slopes.

Further evidence that the Starnes Bridge is a transitional design is found by comparing it with the St. Clair Street Bridge over the Kentucky River in Frankfort. The St. Clair Bridge, also constructed by the King Iron Bridge Company, has a polygonal top chord of more than five slopes and has sub-ties, features identifying it as a true Pennsylvania truss. The St. Clair Street Bridge was built three years later than the Starnes Bridge, in 1893. At the time of its construction, the 406' length of the St. Clair Street

Bridge made it the longest single span in Kentucky. At 200', the Starnes Bridge is one of the longest camelback trusses known in Kentucky. The St. Clair Street Bridge is listed in the Historic American Engineering Record Inventory.

The Starnes Bridge is located in a bucolic, rural setting of rolling terrain. It is a one-lane structure with a wooden floor and a 15' road width. It is posted for a 10 ton maximum load limit.

As can be seen in the accompanying photos the Starnes Bridge is constructed of standard rolled materials including channels, angles, lacing bars, and die punched eyebars.

The end posts and top chord are 2 channels and 2 sets lacing bars; bottom chords are 2 die-forged rectilinear eyebars; and intermediate posts and top lateral struts are paired angles with lacing bars. The hip verticals are 2 square eyebars that are loop-welded at top and die-forged at the bottom chord. Diagonals and counters are either 2 square eyebars or paired angles and lacing bars. Top and bottom lateral bracing are single round rods. The floor beams are riveted girders and the stringers are rolled I-beams.

The abutments for the Starnes Bridge are built of large cut stones. Stairs on either side of the roadway lead down to the creek terrace. Local informants recall that numerous area churches used the site for baptisms.

The "Survey of Truss, Suspension, and Arch Bridges in Kentucky" completed in January, 1982, located two additional camelback-Pennsylvania trusses in the state. The Central Bridge in Covington (National Register eligibility 9/30/82) is primarily a cantilever truss but also has two camelback-Pennsylvania trusses. The Central Bridge was also built by the King Iron Bridge Company in 1890.